

California Aquifer Exemption Request Completeness Check

Project:

Key to tables: Each row in the tables below describes a piece of information that EPA will need to evaluate to determine whether the aquifer exemption request meets the criteria at 40 CFR 146.4. EPA evaluated the completeness of the information submitted and recorded its findings as follows:

- “Submitted and complete” means that the aquifer exemption request included information on which to evaluate the specific aspect of the criteria (and the relevant information in the request is summarized in the table).
- “Incomplete” means that the applicant submitted some information, but it is incomplete or of insufficient detail to support a determination. EPA requests specific clarification or additional information in these rows of the table.
- “Not provided” means that EPA found nothing in the request that addressed the element.

General Project and Aquifer Information

General Information	Submitted and complete? (If incomplete, describe information needed)
Owner/operator name	
Well/project name	
API number(s)	
Well Class (and subtype)	
Purpose of Injection	
Where is the proposed aquifer exemption located?	
Township, Section, Range, Quarter	
Latitude and longitude Information	
County and City	
Information about distance to nearest Town and/or County	
Name of the aquifer or portion of the aquifer to be exempted	
Areal extent of the area proposed for exemption	
Depth and thickness of the aquifer	
Information on the TDS content of the aquifer, including the TDS at the top and bottom of the exempted zone, and the locations and depths of all fluid samples taken	
Substantial or non-substantial?	
Describe the basis for substantial/non-substantial determination	
Did DOGRR provide public notice and opportunity for public hearing on the AE request? (40 CFR 144.7)	
Were there any public comments?	
If so, where are these public comments located?	
Dates of public notices published	
Dates of public meetings held	
Dates of hearings held	
Were there any notable findings or pending litigation?	
Description of the notice and comment process and the state’s final decision	

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Basis for the decision to exempt the aquifer or withhold or deny the request		
Any anticipated issues associated with EPA approval or disapproval of the AE request?		
Any meetings between EPA/State/Tribes/Operator to discuss issues. If so, dates of those meetings.		
	Yes	No
Water disposal wells into sub-3,000 TDS?		
Water disposal wells into 3,000-10,000 TDS aquifers?		
Enhanced oil recovery into hydrocarbon-bearing, sub-3,000 TDS aquifers?		
Enhanced oil recovery into 3,000-10,000 TDS aquifers?		

Regulatory Criteria

Information to support a demonstration that the aquifer or portion thereof does not currently serve as a source of drinking water per 40 CFR 146.4(a)

Checklist item - 40 CFR 146.4(a)	Submitted and complete? (If incomplete, describe information needed)
How the proposed exempted area was determined (<i>i.e., does it account for all past and future injection?</i>)	
Lithology	
Permeability and porosity	
Direction of groundwater flow	
Upper and lower confining zone(s) and description of vertical confinement from USDWs	
Oil or mineral production history	
Information on drinking water wells that draw from the aquifer proposed for exemption, for which the aquifer might be a current source of drinking water	
Maps of the area, geology, and hydrogeology	
Table of inventoried water wells with owner information, purpose, depth, name of aquifer, well completion, age, and data source (including all wells tapping any aquifer in the area)	
Map showing down-gradient and hydraulically connected water wells (including all wells that draw from the aquifer proposed for exemption or any hydraulically connected aquifers)	
How ground water direction and speed were determined	
SWPAs and designated sole source aquifers	
Size of the area evaluated and rationale for determining the size	
Information on the capture zone of wells in the area	
How the lifetime of the well was determined	

Information to support a demonstration that the aquifer or portion thereof cannot now and will not be used as a source of drinking water in the future because it is mineral, hydrocarbon or geothermal energy producing per 40 CFR 146.4(b)(1)

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Checklist item - 40 CFR 146.4(b)(1) Criteria	Submitted and complete? (If incomplete, describe information needed)
Narrative statement	
Logs and core data	
Maps	
Data	
State issued permit	
Information on previous hydrocarbon production (commercial producibility is presumed) or production history of converted production wells or other wells in the vicinity	
Formation description, depth, thickness and permeability or porosity (new Class II wells)	
Drill stem tests	
Project description	
If CBI is an issue, R&D project results	

Information to support a demonstration that the aquifer or portion thereof is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical per 40 CFR 146.4(b)(2)

Checklist item - 40 CFR 146.4(b)(2)	Submitted and complete? (If incomplete, describe information needed)
Availability of less costly and more readily available alternative supplies	
Adequacy of alternatives to meet present and future needs	
Costs for treatment and/or development associated with use of the aquifer	
An economic evaluation that considers: distance to PWS; water sources; availability, quantity and quality of alternative water supply sources; future water supply needs in the area; depth of the aquifer; and water quality	

Information to support a demonstration that the aquifer or portion thereof is too contaminated per 40 CFR 146.4(b)(3)

Checklist item - 40 CFR 146.4(b)(3)	Submitted and complete? (If incomplete, describe information needed)
Concentration, type, and source of contaminants	
If contamination is a result of a release, whether contamination source has been abated	
Extent of the contaminated area	
Probability that the contaminant plume will pass through the proposed exempted area	
Ability of treatment to remove contaminants from ground water	
Current and alternative water supplies in the area	
Costs to develop current and future water supplies (e.g., construction, transportation, treatment costs)	

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Projections of future use of the aquifer	
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Information to support a demonstration that the aquifer or portion thereof has a TDS of more than 3,000 and less than 10,000 mg/l and is not reasonably expected to supply a public water system per 40 CFR 146.4(c)

Checklist item - 40 CFR 146.4(c)	Submitted and complete? (If incomplete, describe information needed)
Basis for determination that the TDS is between 3,000 and 10,000 mg/l (for example, are current, detailed analysis reports provided, from a lab that is certified in California?)	
Basis for determination that the aquifer is not reasonably expected to supply a PWS	
Information about water quality and availability	
Potential PWS use of the aquifer, including description of current sources in the area, the adequacy of current sources to supply future needs, population projections, economy, future technology, and other available water supply sources in the area	